

## **SYSTEM, METHOD AND APPARATUS FOR EVALUATING TISSUE TEMPERATURE**

### **ABSTRACT OF THE DISCLOSURE**

Method, system and apparatus for monitoring target tissue temperatures wherein temperature sensors are configured as passive resonant circuits each with  
5 a unique resonating signature at monitoring temperatures extending below a select temperature setpoint. The resonant circuits are configured with an inductor component formed of windings about a ferrite core having a Curie temperature characteristic corresponding with a desired temperature setpoint. By selecting  
10 inductor winding turns and capacitance values, unique resonant center frequencies are detectable. Temperature monitoring can be carried out with implants at lower threshold and upper limit temperature responses. Additionally, the lower threshold sensors may be combined with auto-regulated heater implants having Curie transitions at upper temperature limits.